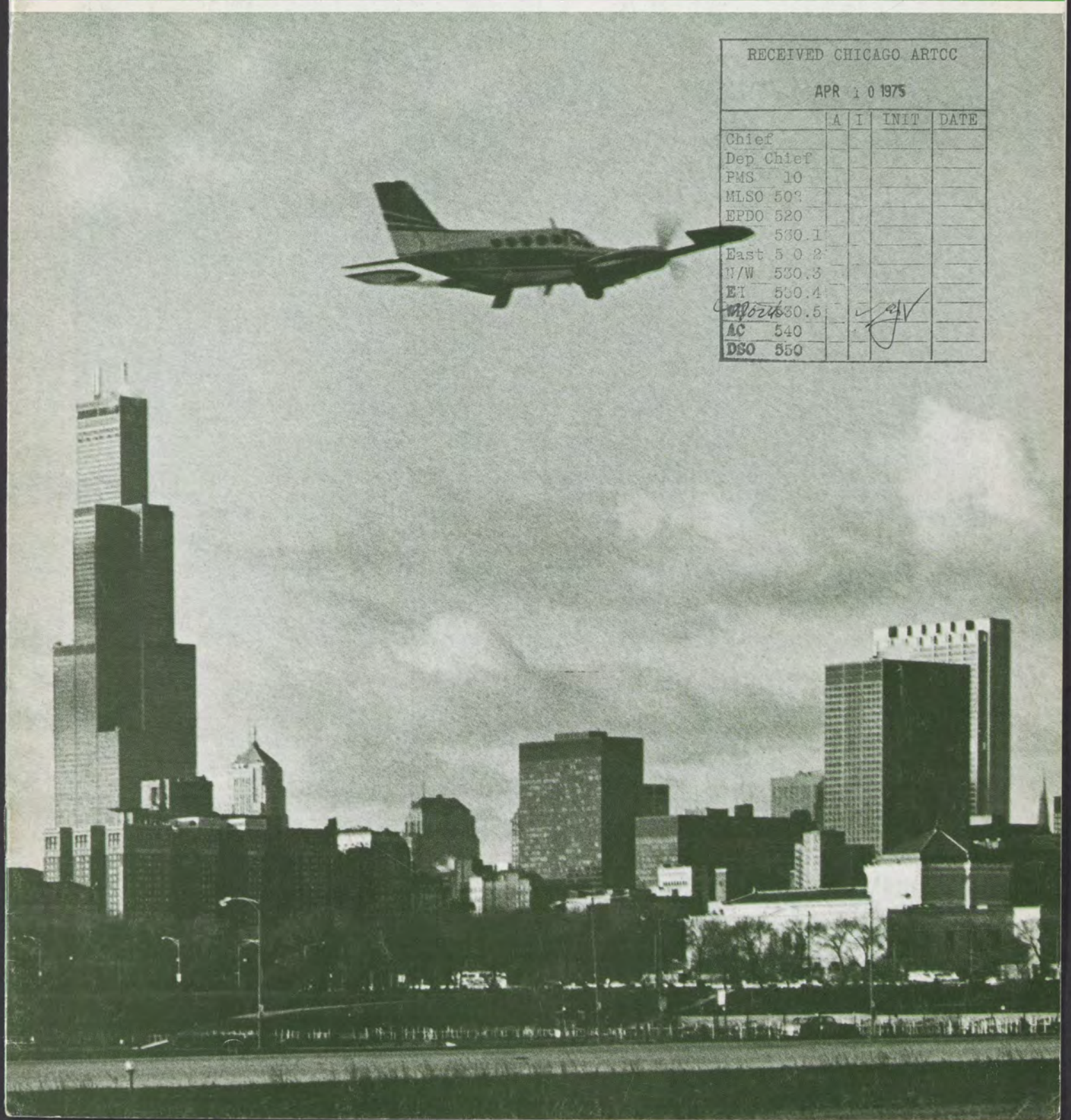
FAA AVIATION NEWS

MARCH 1975



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COVER:

The handy reliever:
Chicago's Meigs Field.
See page 10.

(Photo by Warren Holtzberg)

FAA AVIATION NEWS

DEPARTMENT OF TRANSPORTATION/FEDERAL AVIATION ADMINISTRATION VOL. 13, NO. 10

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Nowhere to Go

When ice builds on the wings, your ceiling goes down

During the Spring semester break in 1972, three University of Washington co-eds caught a ride to Los Angeles in a Piper *Tripacer* flown by a graduate student at the University. Their happy holiday came to a tragic end on the return flight, when the VFR pilot became trapped by clouds in a mountain pass near Medford, Ore., at night. While attempting an emergency landing he stalled and crashed into an icy reservoir. Obviously the pilot used poor judgment in letting himself become trapped by lowering ceilings, and it was his failure to maintain flying speed that led ultimately to the crash. But the one factor which he was helpless to cope with was the formation of structural icing, which disfigured the airfoil, overburdened the aircraft and resulted in loss of control.

Each year general aviation pilots are involved in about 40 such inflight airframe icing accidents, and about 25 percent of them have fatal consequences. There is one simple rule which, if strictly adhered to, can reduce this accident toll to near-zero: *Never fly into known or suspected icing conditions.* For general aviation pilots, there are no exceptions to this rule; no amount of anti-icing or de-icing equipment can guarantee you protection from all types of icing in a light aircraft.

Structural inflight icing is one of those winter-associated hazards to aircraft which is not actually confined to the midwinter season. In recent years the largest number of structural icing accidents have not taken place in January—usually the coldest month—but in the early winter months of November and December, and the later winter/early spring months of February, March and April. In point of fact, structural icing has occurred to aircraft in every month of the year, but only in the far northern climate during the summer. This type of icing is most likely to occur in the temperature range between the freezing point and five degrees above zero F. At lower temperatures, there is usually insufficient moisture in the air for icing to form.

However, the pilot who is planning a flight in cold weather must consider the temperatures expected at his en route altitudes, as well as at lower altitudes. In damp weather the ambient temperature decreases about three degrees F. for every thousand feet of altitude (the temperature drop may be as high as five and a half degrees in dry weather). It is not possible for meteorologists to predict the exact location and time of icing conditions aloft, since air currents

which affect these conditions are constantly shifting, but whenever the possibility of inflight icing is forecast, that possibility alone should be enough to ground a responsible pilot. Even if you are strictly a VFR pilot and intend to stay clear of the clouds, you could pick up enough moisture on the airframe to cause trouble in subfreezing air.

In the case of the vacationing pilot mentioned above, pilot reports of inflight icing along his intended route were available to him.

His return flight to Seattle began early on the morning of March 24. The pilot opened his flight plan by radio at 5:38 a.m. and he received a weather briefing by the Los Angeles Flight Service Station. The weather enroute appeared to be VFR with marginal ceilings. The pilot, aged 32, was flying a *Tripacer* belonging to the Red Baron Flying Club of Renton, Wash. He had logged a total of 182 flying hours, 18 in a *Tripacer*. The aircraft had recently been worked on by a mechanic who reported that the ignition harness was badly deteriorated and recommended that it be replaced.

The flight proceeded without incident as far as Redding Airport in northern California, where an intermediate stop was made for lunch at noon. At this point Redding had low ceilings and barely three miles visibility. The pilot closed out his flight plan by telephone to Red Bluff FSS and had a mechanic work on his brakes while he waited for an improvement in the weather. He was advised not to try to underfly the clouds on his way north, in view of the presence of high mountains along the route, including Mt. Shasta (14,162 feet) and the tendency of the passes to become fog shrouded at this time of the year.

He discussed the possibility of simply following the highway north around Dunsmuir and Shasta. Local pilots discouraged the idea, pointing out that the highway passes between the upper elevations were quite narrow in places, with hardly enough room for one plane to pass another in good weather.

The pilot checked into the tie-down and lodging costs at Redding, then called the FSS at Medford, just over the Oregon border, for a weather report. At 4:30 p.m. Medford was reporting scattered clouds at 2,000 feet, ceiling 4,500 broken. At 4:50 the *Tripacer* departed for Medford.

Ten minutes prior to the departure of the four students, an AIRMET was issued by the Seattle office of the National Weather Service, forecasting light to moderate icing and low ceilings along the slopes of the Oregon Cascade Mountains, with light rain or snow, and widespread turbulence below 12,000 feet. (An AIRMET is a weather advisory issued to notify en route pilots of light aircraft of the possibility of their encountering hazardous flying conditions which were not included in their preflight briefings. These conditions are *icing, turbulence, high winds, low ceilings* and *reduced visibilities*. AIRMETS are broadcast over VOR frequencies with voice capability.)

The *Tripacer* pilot was able to follow Highway 99 north around the base of Mount Shasta and continued his flight without difficulty until he crossed into Oregon in the vicinity of Mt. Ashland, about 25 miles south of Medford. At this point he

Between the rocks and the wet stuff: attempting to climb out over clouds led to inflight structural icing.

Rescuers plumbed the icy depths of the lake shortly after the crash.

apparently found his route blocked by clouds. Instead of turning back, he decided to climb over the clouds in order to reach Medford. It was a fatal decision.

As he climbed through 6,000 feet, then 7,000, 8,000, and 9,000 he began to encounter light rain and snow flurries. As he approached 10,000 feet ice began to form on the windshield and wings. Soon he found the *Tripacer* was unable to climb, and in fact, was beginning to descend, despite the use of full power. At 6:22 he radioed the Medford FSS that he had dropped down to 6,300 feet, was over clouds and building up ice. He indicated that he did not have an instrument rating, but had received "a few hours" of instrument training.

A DF (Direction Finder) bearing on the *Tripacer* indicated the aircraft was on a 110 degree bearing from the Medford Airport. *How bad was the icing on the plane?* The pilot said he could see about three-eighths of an inch on his pitot tube, about the same on the wing. And he had lost another 500 feet of altitude, according to his altimeter.

But was the altimeter functioning normally now? When the pitot tube and/or the static ports become blocked for any reason, (as from icing), malfunctioning of the altimeter, airspeed indicator and vertical climb speed indicator may be expected.

As the aircraft continued to lose altitude, a DF fix located its position as approximately 12 miles southeast of Medford Airport, in the vicinity of Ashland, where some of the terrain was over a mile high. The *Tripacer* was unable to climb.

At 6:35 a Cessna 421, a light twin, departed Medford Airport. The pilot volunteered to attempt to contact the lost *Tripacer* visually and lead it to the airport. For nearly half an hour the Cessna searched through the southeast quadrant of the Medford VOR at the altitudes reported by the *Tripacer*. The search pilot reported fairly dense clouds from about 4,000 feet above mean sea level to about 12,000 feet. The possibility of the two aircraft blundering into each other in the clouds and the gathering darkness became an increasing hazard. Both aircraft turned on landing lights but were unable to catch a glimpse of one another. At 7:00 p.m. the Cessna broke off and headed on its way north.

Three days after the accident, rescue squad divers pulled the bodies from the lake. The aircraft was not recovered for some two months.

In the meantime, the *Tripacer* apparently moved through warmer air and shed some of its ice; the pilot was able to climb up to 6,700 feet. At this point he reported that the "engine feels kind of rough. I guess we're running into a bit more ice."

A few minutes later he apparently experienced a partial stall, and reported that he was "going down 2,000 feet per minute." He pulled the nose up and stalled again. He was finally able to level out at 6,200 feet, but was no longer able to climb. He radioed that he saw "some snow or ice flying by pretty good now," and he thought he could see the ground.

(As the Medford tower now began experiencing difficulty maintaining radio contact, control of the flight assist was transferred to the Seattle Air Route Traffic Control Center, which has remoted receivers in the area.)

A moment later he called, "I'm pretty close to the ground right now. I can see four lights up ahead. It looks like a reflection off some water."

(Residents living near the south end of the Hyatt Reservoir, nine miles east of the Ashland Parker Airport and just north of Siskiyou Gap, elevation 4,456 feet, reported hearing and seeing a light plane circling repeatedly in the area shortly after 7:00 p.m. There was a heavy snowfall at the time, but the red and green lights of the aircraft were visible.)

The *Tripacer* pilot was advised that he was in the vicinity of Hyatt Reservoir. He replied that his fuel was running low and that he was planning an emergency landing—". . . when my left tank goes I'll dump it right in front of the four lights."

But he had difficulty maintaining reference to the ground, as the snow shower continued, and he reported that, "It's kinda difficult keeping my nose up. I'm starting to dive and I'm starting to stall."

He could still see the row of four lights at the marina on the reservoir's edge, but not the water itself—"I can see some snow, at least it looks like snow along the water's edge when I'm not looking at the four lights."

Seattle Center asked him if he could see any breaks in the weather.

"No. It looks all gray everywhere. If I could hang on—I just stalled."

It was his last transmission. Following the stall the aircraft went into a steep left descending spiral and plunged nose down into the icy waters of the reservoir. It was three days before the four bodies were recovered. The aircraft, submerged to 40 feet, was not taken out until the following June.

It was a high price to pay, to save the cost of a night's lodging. ■

The Wayward Wind

March is the time for all good pilots to brush up on their crosswind techniques

A good many of us assume that the safety rule about carrying an adequate fuel reserve on cross country flights (for diverting to an alternate airport if necessary) is related only to possible weather problems. But if you have ever found yourself committed to landing in shining CAVU conditions at a small airport with a single strip that is temporarily favored with a roaring crosswind, you know better. Who can see the wind?

When it comes to unpredictable wind behavior, March is the season to be wary. This is the month to expect higher than average wind velocities, sudden shifts in speed and direction, as well as wide divergence from the runway. It is important to know how to land your airplane under varying wind conditions—and when *not* to attempt a landing. A crosswind brush-up session with an instructor is time well spent if you plan to fly to a strange airport during the windy season.

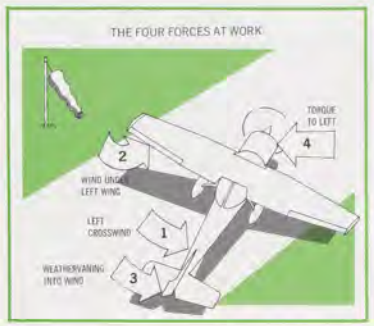
There are two kinds of contrary wind conditions that affect light planes on landing: the fairly steady wind at a pronounced angle to the runway which can be determined; and the gusty, changeable wind that may be hiding behind a line of buildings or playing hide-and-go-seek amongst a clump of trees along the airfield. The latter condition, in particular, calls for instant, correct responses from the pilot—the use of the controls to keep the airplane *over* the runway and lined up *with* it. In a crosswind this usually means cross controls—upwind aileron and opposite rudder—a technique that may seem abnormal at first, but which should be practiced until it is automatic.

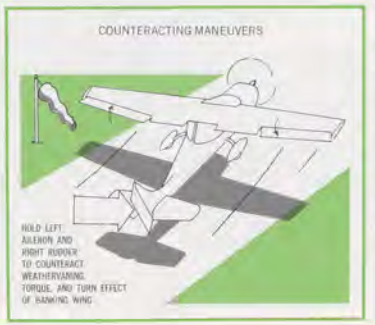
When the wind is gusting you can expect a shift in almost any direction, as much as 180 degrees, as you near the ground. Observe the behavior of trees, bushes, dust—anything that moves—not just the wind sock or tee. A line of trees or buildings along the upwind side of the runway may deflect the wind enough to draw a movement of air from the opposite direction over a portion of the runway, requiring a quick reversal of both aileron and rudder controls. In this situation it is hard to anticipate the gust problems, but the pilot who has learned to use aileron for lateral movement and rudder for runway alignment need not be overly concerned with the why and wherefore of wind tricks.

Some pilots attempt to minimize the effect of the crosswind when landing by touching down at the downwind edge of the runway, angling into the wind. This maneuver is risky unless you have an extremely wide runway—changing directions in your landing roll may create more problems than it solves if the wind gets under your upwind wing. On the other hand, if you land on the upwind edge the wind may blow the tail around in a weathervane effect with equally unhappy results. Given the soggy nature of terrrain in early spring you are probably much better off aiming for the centerline, ready for a sharp blast at any moment.

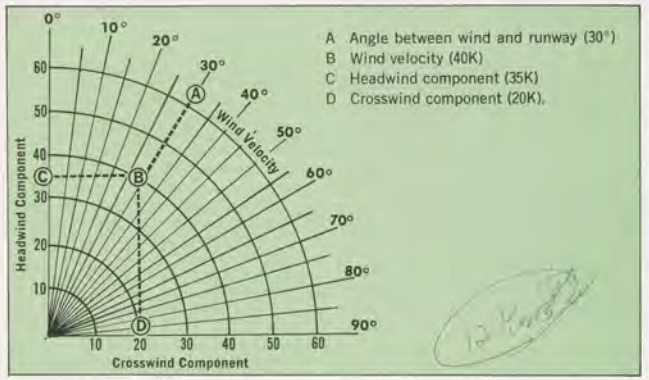
Every airplane has a limit to how much crosswind it can handle, depending partly on the amount of rudder control available. There is also a limit for headwinds which sometimes make the taxi phase of the flight the most hazardous of all.

How do you know how much contrary wind your airplane can handle? It may be given in your owner's manual, or it may be placarded on the panel, or it may be elsewhere. This information exists (the manufacturer had to calculate it for certification) but unless you are the original owner there is a chance you may never have seen it. If you do have it in your possession it may be sketchy, simply giving you a maximum crosswind angle and a maximum wind velocity, or it may be complete, giving you windspeed maximums for every possible angle of wind. As a rule of thumb, the limit for 90 degree crosswind may be estimated at 20 percent of the stall speed; for a 45 degree crosswind at 30 percent of stall. The same rough rule suggests 60 percent of the stall speed as a headwind limit. You should know these important wind limits for every airplane you fly; better yet, be sure they are posted in the cockpit. A turbulent final approach is no place to be doing arithmetic to find out if your airplane can handle the crosswind.





Left — diagram shows the forces acting on an aircraft during a takeoff with a left crosswind. The air is moving to the right (1). There is up pressure under the left wing (2). Weathervaning (3) and torque effect (4) tend to swing the nose into the wind. Right — these forces are counteracted by left aileron to keep the left wing down against the wind, and right rudder to keep the nose headed straight down the runway. After liftoff the cross controls are dropped in favor of a crabbed climbout.



It is not unusual for a strong, gusty crosswind to disappear near the ground during an approach to land. Unless the pilot adjusts controls quickly, he may angle off the runway.

Illustrations based on drawing by William K. Kershner, Iowa State University Press

Crosswinds and headwinds are important for takeoffs as well as landings, although obviously it is usually easier to defer the former than the latter. An added consideration in a crosswind takeoff is the effect of "P-factor" (similar to torque effect) which tends to push the airplane's nose to the left, making it a little easier to handle a strong crosswind from the right than a blow from the left. The latter would require left aileron which would reinforce the left-turning tendency of the airplane's nose. Since you need right rudder to counteract each force, you could run out of right rudder before you get very far off the ground.

In a stiff crosswind, holding upwind aileron, it is not unusual to find yourself making the first part of the landing roll or the final segment of the takeoff run on the upwind wheel only. Unnatural as it may seem, this is a safe, standard procedure if the proper aileron control is used. The thing to guard against in the takeoff is yanking the airplane off the ground prematurely, with only minimum flying speed. Instead the craft should be held on the ground until positive lift-off can be made, then pulled off in a firm motion to avoid the possibility of settling back to the runway. Besides, when gusty crosswinds are waiting to buffet your airplane the moment it is airborne, you want to have the positive control responses that come with sufficient flying speed.

On the other hand a lot of pilots tend to carry too much airspeed when landing in a crosswind, presumably to avoid soft controls near the ground. Actually, the greater the angle of the crosswind the lower the headwind component. A 90 degree crosswind—straight across the runway—is equal to a zero headwind, *no matter what kind of gale is blowing.* If you carry excess landing speed into a zero or low speed headwind, you may have all kinds of problems getting rid of it before you lose the pavement. (Accident records are dotted with overshoots that happened just this way.) If the crosswind is extremely gusty you may wish to come in a little faster than you would in a calm or steady wind. A generally accepted method is to add 50 percent of the gust factor to your normal approach speed. If the wind is 25, gusting to 35, (a 10 knot gust factor) add five knots to your usual over-the-fence speed.

When preparing to land in a strong crosswind it helps if you can extend your final to give you more time to evaluate the wind effect on the airplane and to set up a good approach. Remember, *the slower your speed, the more rudder you will need to stay lined up with the runway.* If you find during the final approach that you cannot stay in line with the runway—even with full rudder—your chances of making a successful landing are poor. Better look for an alternate.

Crosswind landing accidents are usually more harmful to the airplane than to its occupants, but no one likes starting out the flying season with a bent prop. Make March a Be-Kind-to-Your-Airplane Month. ■

Handle With Care

Part II of a two-part series on the carriage of hazardous materials in general aviation.

If, as was established in the first half of this article (in the February issue), such common household items as hair sprays, deodorants or perfumes may be classified as hazardous materials, does that mean that no one can carry an ordinary overnight case that is not specially packed and labeled on board an airplane without violating Federal Aviation Regulation Part 103?

Not so. The FAR provides that medicinal and toilet items in limited quantities are not considered hazardous materials. A recent amendment allows each crew member or passenger to carry on board, without special packaging, up to 75 ounces total (net weight or fluid) of medicinal or toilet articles, provided that no single container, other than an aerosol container, can carry more than 16 fluid ounces or one pound of material.

Incidentally, aircraft equipment and materials necessary for the safe operation of the aircraft (such as oxygen) or for signaling are also excluded from the list of hazardous materials—as is small arms ammunition for personal use.

Apart from these exclusions, materials which are classified as hazardous may only be carried on aircraft when packed, marked (identified) and labeled, and restricted in quantity in accordance with the Code of Federal Regulations. Some items are exempt from full compliance, under specified conditions of carriage and quantity restriction. Certain items, considered highly dangerous, are not acceptable aboard an aircraft. Also, a distinction is made between those articles which may be carried on passenger-carrying aircraft, and those which are limited to cargo-only aircraft. Authority to deviate from any of the requirements of FAR 103 must be obtained from an FAA District Office.

Incidentally, magnetized materials, while not inherently dangerous in the ordinary sense of the word, are nevertheless regarded as hazardous when carried on board an aircraft because of their potential for adversely affecting flight or navigation instruments. The rule provides that magnetized articles must be plainly labeled as such, that they be packed so that the polarities of each unit oppose one another, and that keeper bars be installed on permanent magnets to prevent them from affecting the magnetic compass.

The definitions and instructions which determine the kind of packaging needed to make a hazardous material acceptable for air transport are contained in Title 49, Code of Federal Regulations, Parts 100-199. The complexities of Title 49 as a reference book are such that general aviation pilots are advised to seek assistance from their local FAA District Office on questions about Part 103. It should be noted that operators who carry hazardous material "for hire" are required to provide appropriate training for all flight and ground personnel assigned duties and responsibilities involving the carriage of hazardous materials. This includes, of course, the pilot-in-command. The operator must also maintain a manual for the guidance and instruction of air and ground crews in handling hazardous materials. Guidelines for the manual and the training are contained in FAA Advisory Circular 103-3, "Information Guide for Training Programs and Manual Requirements in the Air Transportation of Dangerous Articles and Magnetized Materials." It is available free from the DOT Distribution Unit, TAD 484.3, Washington, D.C. 20590.

Below—Ed Fell, FAA Hazardous Materials Coordinator, inspects packages on the cargo ramp at Washington National. Right—commercial cargo operators must set up training or refrain from carrying hazardous articles.

For the private pilot, the question of what he can take with him in the airplane, and how, can best be answered by his GADO inspector, but even the inspector may not be able to come up with an instant *Yes* or *No* or *How to pack it*. Exemptions based on packing instructions are quite specific and detailed in accordance with the chemical contents and quantity of the hazardous material.

You cannot simply ask the inspector, for example, whether you can carry some cans of paint in your little airplane. Paint is classified as a "flammable liquid" (and hence within one of the eight major categories of hazardous materials) if its flash point is 80°F. or lower. So before he can answer you, he has to know the flash point of the brand you have, and he may have to contact the manufacturer to determine this.

If the flash point is above 80°, you can carry all you like of the paint, so long as you do not overload the aircraft. If it is 80° or lower, you would be allowed to carry it in metal containers not larger than quart size or in non-metal containers of one pint or less, securely boxed in a strong, corrugated cardboard carton or wood crate. If you wished to carry "flammable" paint in larger containers, you would have to comply with other instructions.

In either case, you would be required to affix a standard DOT diamond-shaped label identifying the contents as falling within a particular category of hazardous material.

Supposing that you own an air conditioning supply house, and a customer of yours at an oil well site telephones to tell you that the local supplier has run out of this type of refrigerant, and without it they are unable to work the oil well. He knows you are a pilot and have a plane. *Can you fly down a tank or two of "Refrigerant 12?"* Since you know that the chemical compound in your refrigerant is "dichlorodifluoromethane," you can spare the FAA official and yourself a lot of wasted time and motion by providing this information. You will then be promptly informed as to packing instructions for airlifting the material (yes, it is hazardous) down to your customer.

Sometimes, of course, the questions are much simpler. For example:

• *Can I carry home a case of airplane engine oil in my airplane?* (The local airport has a sale on it.) The answer here is a quick *Yes*. Practically all commonly used engine oil has a flash point well above the 80 degrees that would class oil as a "flammable liquid."

A fully charged SCUBA tank is on the hazardous list. Unless partially de-charged (below 40 p.s.i.) it must be specially packed, marked, labeled and loaded to be carried aboard any aircraft.

• *Can I carry my scuba tank in my airplane?* It all depends. If it is charged in excess of 40 p.s.i.g. (pounds per square inch gauge) then it must meet packaging, marking and labeling requirement (DOT approved tank in a sturdy carton with valves protected). There is a simple solution here, however: de-charge the cylinder to a lower pressure. The article then becomes non-hazardous and can be carried as you would any other heavy iron tank. A pressure in the neighborhood of 25 p.s.i. is good; if you empty it completely you could introduce contaminants. Have it filled wherever you are going to dive.

• *I'd like to carry a couple sacks of fertilizer to my farm in the next state. Is this dangerous?* The normal mix of fertilizer would not be regulated. Only if it had a content of more than 90 percent ammonium nitrate with no organic coating, would it be corrosive and thus subject to the rules. This would be an unusual formula, not normally found in the retail market.

There are also some general rules which govern the carrying of hazardous materials aboard an aircraft. No hazardous material, no matter how well packaged, may be carried in the *cabin* of a passenger-carrying aircraft—regulated material can only be carried if it is in a compartment that is *not accessible to the passengers*. If your aircraft does not have a separate cargo compartment then you cannot carry such items with a passenger on board. (This affects many general aviation aircraft, from small single engine trainers to twin engine executive jets.)

No more than 50 pounds total of hazardous material (or 150 pounds of compressed gas) can be carried in an inaccessible cargo compartment of an aircraft (passenger or cargo). You *can* carry more than the 50 pound maximum in an all-cargo plane but it must be within reach of a crewmember in flight. (It must also be within approved quantity limits.)

Certain items must be kept separate: flammable solids or oxidizing material cannot be stowed next to a corrosive; poisons should not be carried in a compartment with food. Also, regulated liquids must have adequate "outage" (space for expansion) and must be packed in absorbent material in case of leakage. All items must be secured to prevent shifting in flight.

If the pilot and the shipper are not the same person, then the pilot must be given *written* notice of what kind of hazardous material is on board, how much there is and where it is stowed. He has the right to inspect it and to refuse to carry it if it does not conform to the requirements.

Compliance with the varied facets of Part 103 may seem so complicated at times that pilots who are not involved in commercial operations may feel unjustly put upon by the rule. The fact is that private pilots, who are the least regulated segment of aviation as regards hazardous materials, may be most vulnerable to accidents or injuries resulting from their carriage, since private pilots are not required to undergo training on this subject. Carriage of hazardous materials by air is increasing steadily, and the likelihood of a general aviation pilot being tapped on the shoulder and asked to carry medical or industrial supplies, in an emergency or as a matter of convenience, is very real. Make sure that you do not let one emergency lead to another—understand the rule, and know the contents of whatever you carry. As pilot-in-command you are responsible for the safety of your flight. There is no way that you can plead ignorance of the law.

Small Planes and Big Airports

How not to "have a blast" on the ground

One aspect of flying in the contemporary environment which every general aviation pilot should be prepared for, by formal instruction, is the proper procedure for avoiding turbulence caused by jet aircraft. Not only is wake turbulence an increasingly common phenomenon, but *jet blast* is also becoming a serious problem at airports where there is a mix of light and heavy aircraft. The onset of jet engine blast often develops with such abruptness that the pilot has no time to reason out the nature of the phenomenon and decide the safest course of action. If his training lacks this kind of experience he may do the wrong thing, or nothing, with serious consequences, as in the following example:

A student pilot, training at Tampa International Airport, was authorized by his flight instructor to conduct solo takeoffs and landings on runway 36R, which is 8,300 feet in length. Three touch-and-go landings were executed without incident, and as agreed the student then prepared to make a full-stop landing and pick up his instructor. While approaching on his downwind leg, the student noticed an air carrier jet waiting, apparently for clearance, at the threshold of the runway.

As he continued his approach, monitoring the tower frequency, the student heard the control tower clear the air carrier jet for departure. The pilot of the big jet replied that he had a mechanical problem and that there would be a delay. The student pilot, who was flying a *Yankee* trainer, saw the jet make a left turn off the runway and come to a stop with his tail at a right angle to the runway.

After receiving clearance to land, the student turned on final. He was over the runway, beginning to flare, when he crossed behind the jet's tail at an altitude of about 10-14 feet above the ground. At this moment, unknown to the student, the jet's engines were spooling up to break-away power, as the air carrier pilot decided to move his aircraft. Exhaust blast from the jet engines hit the left side of the *Yankee*, rolling it abruptly to the right. The nose dropped sharply, the right wing tip scraped the pavement and the aircraft struck the runway, collapsing the nose gear and partially collapsing the right landing gear. The light plane skidded several hundred feet down the runway before coming to a stop. Fortunately there was no fire, and the student pilot, securely belted to his seat, escaped injury.

In reporting on this accident, the National Transportation Safety Board found that the probable cause involved a failure on the part of the student to follow approved procedures. With the ample runway available to him, he could have chosen to touch down far enough down the runway from the parked jet to avoid any danger from exhaust blast. The fact that he had no way of knowing when the air carrier pilot decided to spool up his engines was not considered a valid excuse, since the possibility of this occurring was quite evident.

Since most modern jet engines are relatively free from smoke emissions, it is no longer possible to rely on visible evidence that such engines are active, when passing in their vicinity. Nor may one safely assume that the control tower is always aware of jet pilots' intentions. Whenever passing behind the tail of a jet, you must continue to be on guard against a sudden power surge. If you have any suspicion that by proceeding to taxi or continuing on your way you are exposing your aircraft to a harmful blast, you can decline the clearance, or request confirmation from the jet pilot that his engines are at no more than idle power. The jet pilot cannot usually see what is taking place behind him, and it is not safe to assume that his ear is keyed in to all authorized ground movements in his area.

Incidentally, in the accident cited above, the Safety Board also criticized the instructor for "inadequate training of the student," noting that turbulence avoidance procedures are clearly set forth in the Airman's Information Manual and are available to both instructor and student. Even if your training is done at an airport that never lays eyes on large or jet aircraft, make certain that your instructor reviews these procedures with you.

The strength of the jet exhaust blast appears to be greater from jets with engines in the rear, if for no other reason than their greater height and proximity. On the other hand, wing-positioned jet engines are more likely to fling ground debris or rubble behind them, with punishing force. The general aviation pilot who is not used to flying into major airports may have trouble when he finds himself in a long takeoff lineup sandwiched in between enormous air carrier jets. Aircraft in the lineup tend to move ahead, then stop and wait. If the light plane pilot allows himself to move up too close to the tail of the motionless jet ahead, he may be blasted off the ground when the jet requires break-away power to move again.

What can the light-plane pilot do to avoid the problems of maneuvering on the ground in the proximity of large jets? For one thing he can familiarize himself with the layout and usages of the airport he intends to fly into. Many large airports are able to offer separate runways and taxi routes for small aircraft, but if you unknowingly ask for the air carrier runway, that is likely what you will be given. The flight service station, the fixed base operator and other pilots are all good sources of information on how to keep your little aircraft well away from the hard hot breath of the big jet engines.

It is also a good practice to avoid using unfamiliar large airports at night. Getting lost in some vast, 10,000 acre maze of pavement and vari-colored lights is no problem at all and on more than one recorded occasion unwary pilots have strayed across active runways while supposedly taxiing in accordance with ground control instructions.

But probably the most practical course you can take is to utilize, whenever possible, the nearest satellite or alternate airport rather than the major hub. Over the past five years, FAA has allocated over $54 million to help build or improve reliever airports for general aviation at major cities. In many cities, the reliever or alternate is just as conveniently located as the air carrier airport, or more so, with regard to access to the city. With regard to tie-down space, usage fees, mechanical service, flight planning, etc., the smaller airport may have many advantages for the general aviation pilot—in addition to the absence of ground and air traffic problems experienced at the larger airports.

Examples of major hubs where alternate airports have been provided, modernized or improved for the convenience of general aviation include:

Above—it is not unusual for a pilot to navigate successfully halfway across the country and then get lost on the ground at the airport—especially at night in that sea of blue and white lights. Below—most big airports have predictable rush hours. It makes good sense to avoid the busiest jet times. If you do not know which hours those are, the tower can tell you.

MAJOR HUBS:	ALTERNATES:
Atlanta International	Dekalb-Peachtree Fulton County
Boston Logan Int.	Norwood Memorial Hanscom Field
Chicago (O'Hare)	Midway Dupage County Meigs Field
Dallas-Ft. Worth Reg.	Dallas-Love Field Addison (Dallas) Red Bird (Dallas) Meacham Field (Ft. Worth)
Los Angeles Int.	Van Nuys Hollywood-Burbank Santa Monica Torrance
Miami Int.	Opa Locka New Tamiami
New York "big three"	Teterboro (N.J.) Morristown Mun. (N.J.) Caldwell-Wright (N.J.) Westchester Co. (N.Y.) Republic (N.Y.)
San Francisco Int.	Oakland Hayward Air Terminal San Carlos Palo Alto
Washington National	Dulles International Baltimore-Wash. Int. (formerly Friendship)

Jet blast is one of the subjects discussed in FAA Advisory Circular 90-23D, "Aircraft Wake Turbulence". Free copies are available from DOT/FAA Distribution Unit, TAD 484.3, Washington, D. C. 20590.

Famous
FLYERS

Amelia

Ms. Earhart was a liberated woman 50 years ahead of her time.

Many women might lay claim to being the foremost American female pilot, but if the honor is based on popularity there is only one rightful claimant: Amelia Earhart Putnam. The long-legged Kansas-born feminist leaped into world-wide acclaim overnight in 1928, when she became the first of her sex to fly in an aircraft across the Atlantic Ocean; and for the next ten years she was the symbol of the liberated American woman, freed from centuries of household drudgery by the miracle of flight.

What appealed to every woman's imagination was the role that aviation played in transforming Amelia's life from an apparently aimless humdrum existence into a fairy-tale of excitement. One day she was an obscure social worker dutifully articulating English phrases for poor foreign-born children in a Boston slum, and the next she was dancing all night with the Prince of Wales and being feted at palaces and presidential manors—all because she had taken a few hours of flight training and happened to look like a "female Lindbergh."

The miracle took place in the spring of 1928, just a year after Charles Lindbergh's celebrated New York-to-Paris flight. Lindy's success had provided a financial windfall for newspapers, magazines and booksellers; and numerous promoters were eager to repeat the success with a feminine twist.

A group of New York publicists, including Lindbergh's publisher George Putnam, were looking for a "female Lindy," when they came across an interesting face at a small meeting of aviation enthusiasts in Boston. The face belonged to Amelia Earhart, then an obscure 30-year-old social worker whose mother had once bought her an airplane in order to keep her daughter from driving a gravel truck. She had flown at an exhibition meet in California, but disliked being gawked at in the cockpit like some kind of freak just because she wore skirts instead of pants. But she *did* look something like Lindbergh: tall, slender, with a boyish face and short-cropped hair.

The group headed by Putnam offered her the honor of being the first of her sex to cross the Atlantic in an airplane, provided that she was willing to take a back seat and let the gentlemen do the flying. The pilot was Bill Stultz, the mechanic-navigator, Slim Gordon. The aircraft, called the *Friendship*, was a Fokker trimotor seaplane bought in secret from Commander Richard Byrd. Secrecy was important because at least half a dozen other groups were vying to be the first to fly a woman over the ocean and reap the expected harvest of popular adulation. The veteran pilot Ruth Nichols had actually taken off for England, but cracked up her airplane; others were feverishly readying plans for trans-Atlantic flights. Amelia was not allowed to tell anyone of her impending adventure, but she did sit down and write what she called "popping off" notes to her family, to be delivered only in the advent of calamity.

"*Hooray for the grand adventure!*" she wrote. "*I wish I had won, but it was worth while anyway.*" She added, "*I have no faith we'll meet anywhere again, but I wish we might.*"

On the morning of June 3, 1928, the *Friendship* struggled into the air from Boston Harbor, proceeded to Halifax, Nova Scotia, and from there headed for the British Isles. After nearly 18 hours in the air, most of the time in blinding fog or clouds with the radio blacked out, they spotted a ship on the sea below them and Amelia tried to drop a note (weighted with an orange) on the ship's deck, asking for their position. The "bomb" disappeared into a hatch unseen by those aboard. Some 20 hours and 40 minutes after takeoff, they landed in Burry Point, Wales, and Amelia, who insisted that her passive contribution to the flight could have been duplicated by a sack of potatoes, was hailed by an eager press and public as the "Lady Lindy."

Amelia was feted madly by the reigning society of London for two weeks, while the gentlemen who had done the flying marked time. The captain of the steamer on which she returned to New York staked off an entire deck for her personal privacy, in deference to the frantic acclaim everyone apparently wished to bestow upon her.

Her return, beginning with the usual hero's ticker-tape parade down Broadway, was even more triumphant (and financially rewarding) than her promoters had dreamed. A folklore image of Amelia was conjured up overnight, picturing her as a simple, untutored child of the Kansas prairie who had fallen in love with an airplane at first sight at a state fair, and whose professional ambitions had led to a running battle against (and eventual triumph over) the evil forces of male chauvinism. After a whirlwind tour of 32 cities, she settled down in New York to write a book about herself and count the money that poured in for endorsements, appearances, and lectures by America's latest symbol of the Liberated Woman.

In point of fact, the only serious resistance to the non-feminine aspects of her career had come from her mother, a very conventional judge's daughter from Atchison, Kansas, where Amelia was born on July 24, 1898. While she did see her first airplane at the Iowa State Fair, at age nine, she was immediately distracted by a picture hat and showed no interest in aviation until at least ten years later. While visiting her sister, Muriel, in Toronto in 1918, Amelia was so moved by the sight of Canada's war wounded aviators that she terminated her education at a swank girls finishing school to become a hospital volunteer. In her spare time she had an opportunity to watch military training flights, and so became interested in flying.

But the depressing conditions at the hospital had stimulated a challenge to which she responded, when the war ended, by enrolling as a pre-med student at Columbia University. She did well in her studies, but her enthusiasm for medicine waned rapidly and at the end of her first year she went to live with her parents, now in California.

In Los Angeles, she had her first ride in an airplane, piloted by the famous flyer Frank Hawks. She immediately signed up for flight lessons with "Snooky" (Neta Snook, one of the earliest of women flight instructors), bought a leather coat and cropped her hair short to fit under a helmet. She worked at all manner of odd jobs to save up money to buy her own plane—including driving a heavy truck, which her mother found more disturbing than flying. She soloed after ten hours, and within a few months managed to set a new altitude record for women—14,000 feet. She soon had offers to fly at exhibitions and races, and she settled happily into the fraternity of flyers who worked, lived and breathed flying all day long every day of the week.

But then a sinus infection, apparently contracted during her Toronto stay, grounded her indefinitely and she was obliged to sell her airplane. Recovering slowly, she went back east to Boston, took some courses in law at Harvard, decided that was not for her, and then took a job as a social worker at Denison House, mainly to acquire enough funds to get back into flying. It was here in 1928 that George Putnam found the "Lady Lindy" for his Trans-atlantic first.

Over the next three years she set dozens of new speed and distance records for women, and in 1932 she became the first woman (and only the second person) to fly alone across the Atlantic, from Newfoundland to Londonderry, Ireland, in 14 hours and 56 minutes.

Editor's note: the second half of this article, recounting the famous round-the-world "last flight" of Amelia Earhart, will appear in the April issue.

The first feminine conquest of the Atlantic by air, in 1932, was cheered by multitudes.

Racers Paul Mantz and Amelia Earhart, suited up to test-fly the *Vega* for a Bendix race.

Pilot
BRIEFS

■ THE CASE OF THE TIRED TIRES. When his airplane tires developed slow leaks, the owner used an automotive type of tire sealer, inserted through the valve stem, to try to stop the leaks. Two weeks later when a tire was removed, severe corrosion was found on the inside of the wheel. Before you use any substance or additive in your aircraft check to be sure it is approved for aviation use. If it is not, it could result in an expensive repair job.

■ CAUTION OWNERS AND MECHANICS: Some parts and instruments offered for sale as aircraft replacement parts are represented as being of aircraft quality when they are not, or when their origin or quality is unknown. To be sure any parts or accessories you purchase are FAA approved parts, check that they have an FAA Airworthiness Approval Tag, TSO number or some other unquestionable identification. Do not be misled by deceptive advertising terms like "aircraft quality," "remanufactured," etc. Remember, under FAA rules the responsibility for seeing that materials and parts used in aircraft maintenance and alteration meet requirements, lies with the person who approved the unit for return to service. For free copy of AC 20-62B, "Eligibility, Quality and Identification of Approved Aeronautical Replacement Parts," write DOT/FAA Distribution Unit, TAD 484.3, Washington, D. C. 20590.

■ TSO INDEX. FAA has recently published an updated index of aircraft materials and parts which conform to technical standard orders. Part 37 of the FARs contains standards for specified materials, parts or appliances used on civil aircraft.

The index lists authorized manufacturers and the name, type or model of the article. The index can be obtained free from DOT/FAA Distribution Operations, TAD 443.1, Washington, D.C. 20590. Ask for AC 20-36D, "Index of Materials, Parts, and Appliances Certified Under the Technical Standard Order System."

■ THE ELT THAT FAILED. At least one emergency locator transmitter (ELT) did not activate on impact during an airplane crash recently. The reason, it turned out, was that the shipping screw (used to prevent accidental signals during shipping) was not removed, although a conspicuous tag on the instrument clearly warned the user to remove the screw before flight. If you have a recently purchased ELT, better check to be sure it is ready to serve you in an emergency.

■ OPERATION CLEAN. The carburetor air filter is a small but important piece of aircraft equipment. Its specific function is to remove dirt, sand and other foreign particles from the air before the air enters the carburetor. Many types have protective louvers which may become broken or dislodged by stone fragments. The filter should be checked frequently; in extremely dusty or sandy locations the filter may need checking daily, or every few hours of flight. Bear in mind that a worn or broken carburetor air filter is not doing its job. Dirt that gets into the engine can result in worn piston rings and eventually ring failure.

ACCIDENTS, FATALITIES, RATES
U.S. GENERAL AVIATION
1964—1974

YEAR	ACCIDENTS TOTAL	ACCIDENTS FATAL	FATALITIES	AIRCRAFT-HOURS FLOWN (000)**	AIRCRAFT-MILES FLOWN (000)**	ACCIDENT RATES PER 100,000 AIRCRAFT-HOURS FLOWN TOTAL	PER 100,000 AIRCRAFT-HOURS FLOWN FATAL	PER MILLION AIRCRAFT-MILES FLOWN TOTAL	PER MILLION AIRCRAFT-MILES FLOWN FATAL
1964	5,069	526	1,083	15,738	2,180,818	32.2	3.34	2.32	0.241
1965	5,196	538	1,029	16,733	2,562,380	31.1	3.22	2.03	0.210
1966	5,712	573	1,151‡	21,023	3,336,138	27.2	2.73	1.71	0.172
1967	6,115	603	1,333‡	22,153	3,439,964	27.6	2.72	1.78	0.175
1968*	4,968†	692†	1,399	24,053	3,700,864	20.6	2.86	1.34	0.186
1969	4,767	647	1,495‡	25,351	3,926,461	18.8	2.55	1.21	0.164
1970	4,712†	641†	1,310	26,030	3,207,127***	18.1	2.46	1.47	0.200
1971	4,648	661	1,355	25,512	3,143,181	18.2	2.59	1.48	0.211
1972	4,256†	695†	1,426‡	26,974	3,317,100	15.8	2.57	1.28	0.209
1973	4,251†	722†	1,411	30,048	3,728,500	14.1	2.40	1.14	0.193
1974P	4,362	653	1,290	31,250	3,843,750	14.0	2.09	1.13	0.170

P Preliminary.

* Commencing January 1, 1968, the definition of substantial damage was changed, therefore, fewer accidents were reported. Care should be used in comparing with similar data for prior years.

† Suicide/sabotage accidents included in all computations except rates (1968—3, 1970—1, 1972—3, 1973—2).

‡ Includes air carrier fatalities (1966—2, 1967—104, 1969—82, 1972—5) when in collision with general aviation aircraft.

** Source: FAA.

*** Beginning in 1970, the decrease in aircraft-miles flown is the result of a change in the FAA standard for estimating miles flown.

General Aviation Accident Rates Decrease in 1974

General aviation accident rates for 1974 were the lowest recorded as far back as 1946, according to the National Transportation Safety Board. The rate for 100,000 flying hours for fatal accidents in 1974 was 2.09, down from 2.40 in 1973. The number of fatal accidents in 1974 was 653 as compared to 722 in 1973. Fatalities in 1974 were 1,290 as compared to 1,411 the previous year. The rate for all accidents dropped from 14.1 per 100,000 hours in 1973 to 14.0 in 1974. General aviation includes all non-air carrier civilian flying.

Air carrier accident rate per 100,000 hours flown for total accidents was 0.779 in 1974, up from 0.661 in 1973; for fatal accidents the rate was 0.149 up from 0.138 in 1973. Air carrier fatalities in 1974 were 467 as compared to 227 in 1973.

LOST OR STOLEN AIRCRAFT

Bonanza P35	N9716Y	Cessna 337	N1832M
Cessna 140	N76547	Cessna 337	N5322S
Cessna 172	N78187	Cessna 402	N1422G
Cessna 182	N20790	Piper PA-18	N7563P
Cessna 182	N21276	Piper PA-28	N1806J
Cessna 182	N78509	Piper PA-28	N54438
Cessna 206	N2173F	Piper PA-32	N880A
Cessna 206	N70904	Piper PA-32	N4064W
Cessna 207	N91044	Piper PA-32	N4280T
Cessna 210	N59244	Piper PA32	N44560
Cessna 210	N60777	Piper PA-32	N56879
	Piper PA-32	N8919N	

If you see any of these aircraft advise the nearest FAA flight service station. Of course any listed plane may since have been recovered by the owner.

General Aviation Growth Forecast

General aviation activity is expected to grow at an increased rate over the next decade, according to the latest FAA "Aviation Forecasts" publication. At the same time, the growth rate for the airlines is expected to be slower than that anticipated in earlier projections.

The general aviation fleet is expected to grow from 153,500 this year to 192,000 in 1981, and the figure could reach 275,000 in 1986. Hours flown in general aviation are expected to increase from 30.6 million in 1974 to 40.2 million in 1981 and could reach 57.6 million in 1986.

Production of general aviation aircraft, which was up 17 percent to 14,729 units in 1974, is expected to reach 15,000 in 1975 and level off at about 13,000 per year.

A limited number of free copies of "Aviation Forecasts—Fiscal Years 1975-1986" are available from FAA, TAD-484.3, Washington, D. C. 20591.

Heliports on the Rise in 1974

A stepped-up use of helicopters for transporting accident victims to medical centers and for evacuating persons from tall buildings in a crisis has resulted in a sharp increase in the number of urban helipads, according to the "1974 Directory of Heliports" published by Aerospace Industries Association, Inc. Listings cover the United States and Canada.

The new Directory gives the location of hospital heliports and rooftop facilities—the latter located primarily on highrise buildings. In Los Angeles, Rooftop heliports are required on any building more than 75 feet high, and a similar ordinance goes into effect in Chicago, April 15, 1975. Both ordinances apply to new and structurally capable old buildings.

Complimentary copies of the directory are available from AIA, 1725 De Sales St., N.W., Washington, D.C. 20036.

Medical Guide For Pilots Issued

A new medical handbook has been published by FAA to help pilots decide whether they are physically and psychologically fit to fly a particular flight. The book is dedicated to the prevention of air accidents caused by human factors.

The effect on flight performance of such factors as fatigue, smoking, alcohol or drug use (even common nonprescription remedies), illness, age, hearing, vision and psychological factors (anger, fear, anxiety, etc.,) are discussed. In many cases an awareness of the condition is all that is needed for a safe operation; under other circumstances the flight should be postponed—or terminated—until the pilot is better able to function.

Copies of the 74-page guide "Medical Handbook for Pilots" can be purchased for $1.45 from Superintendent of Documents, GPO, Washington, D.C. 20402.

SHARING THE ROAD. A motorist watches and waits while a crop-dusting aircraft lands on a California roadway. When mud on the regular airstrip prevented its use the pilot was given permission by county authorities and the Highway Patrol to use a nearby road, where traffic was stopped.
Photo by Owen Brewer

FAA Aviation News welcomes comments from the aviation community. We will reserve this page for an exchange of views. No anonymous letters will be used, but names will be withheld on request.

• IFR Approach Minimums

Please clarify the following regarding IFR approaches: FAR 91.116 states under "Landing Minimums" that on an instrument approach you may not land unless the visibility is at or above the landing minimums prescribed for the procedure used. Yet 91.117 (b) says no person may operate an aircraft below the prescribed MDA or DH unless . . . (2) the approach threshold of that runway or approach lights or markings are clearly visible to the pilot. One paragraph seems to contradict the other. Can I legally shoot an instrument approach even though the reported visibility is below minimums, and can I land if I have the runway in sight at MDA?

Jules J. Arel
E. Lebanon, N.H.

As a general aviation pilot operating under Part 91 you may shoot an approach, even though the reported visibility is below published minimums and you may land if when you reach the minimum descent altitude (MDA) or decision height (DH) you have the runway (or runway lights or other markings) in sight, and can keep them in sight until the landing is made. (DH for precision approaches, MDA for non-precision approaches.) This rule takes into account the fact that visibility may be different at the approach end of the runway than at the tower or reporting point. In this situation the controller will advise you that visibility is below minimums and will ask your intention; if you elect to complete the approach you will—at the appropriate time—be given clearance to land if you have landing minimums.

• Moving VORs

Your November article "A Different Kettle of Fish" noted that the former "Herndon" VOR had been moved a few miles to Dulles Airport and renamed "Armel." The frequency, however, was *not* changed. While pilots should, of course, use only up-to-date charts and check the identification of VORs, some will, in practice, fail to do either. I suggest that when a VOR is moved the frequency be changed, either by trading allocations with a none-too-close station or using a 50 kHz channel. If the pilot failed to get any signal on his frequency he would be more apt to request current information.

Steven P. Haver
London, Ky.

Changing a VOR frequency is not as simple as it might seem. Each frequency available for VOR use is utilized repeatedly across the country, in locations painstakingly planned to avoid overlapping reception. Swapping channels with another facility is not usually possible. As for using a 50 kHz split-channel, a user-coordinated FAA Policy Decision allows use of the split channels only where 100 kHz frequencies are not available. Also, the cost of a frequency change for a single VORTAC now runs over $1,500.

FAA does try to give as much notice of such changes as possible. For instance, the Herndon VOR was relocated and renamed in July, 1974. Beginning in February 1974 NOTAMS in Part 3A of AIM carried word of the impending change. For the instrument pilot the Washington Area En Route Chart for June 20 showed both VORTACs with a notice of the change and a warning to check NOTAMS. At the time of the changeover NOTAMS were included during the regular hourly weather broadcast over VORs in the area for one week before and 24 hours after the change. Pilots requesting preflight briefing for affected routes were told of the change by FSS.

This situation underlines the importance of an FSS briefing before every cross country flight. Listening to a transcribed weather broadcast, or watching the morning news weather map on TV, is a good first step in flight planning, but only one of many important steps.

• AD Notes For Heavies

Since your December article on Airworthiness Directives, "Fit to Fly," we have received numerous inquiries on how to get Volume II (large aircraft) of the Summary of Airworthiness Directives. Please tell your readers that this volume is available from:

DOT/FAA
Aeronautical Center, Attn: AAC-23
P.O. Box 25461
Oklahoma City, OK 73125

Price is $7.50 (foreign, add $1.90), which includes bi-weekly listings of all directives published for a two year period beginning with the publication date of the Summary.

Ralph Hare
Aeronautical Center

• More Mail for Pappy

Dear Pappy: I'm a young feller with just a couple hundred hours. I enjoy your commentary cause I can relate to an old sage like yourself. However, your comment in the November Forum that an index to the Airman's Information Manual would be too expensive and us real smart pilot types don't need it anyhow, makes my engine run rough! I mean, after all, ain't speed and utility the name of the game?

Us young-uns still in the learning process NEED ready access to the facts and it ain't no fun lookin' for an hour to find out that flashing green and red from the tower means be real careful. Why shucks, I'll make an Index for you fellers if things are all that bad down there in the city. Your fan.

Don Rosborough
Aston, Pa.

• Government Subscriptions

I read your "Status of the FAR's" in the October issue, in which you state that FAR subscriptions can be obtained at GPO Bookstores. Having given up last August on ordering FARs by mail, I traveled to the Bookstore in Canton, Ohio to purchase some FAR's. They told me they do *not* sell FAR's . . . you must get them from the Washington GPO only. Thanx a bunch!

Peter St. Jean
Mt. Vernon, Ohio

Under a recent Government Printing Office policy change all government subscription services must go through GPO in Washington. If you have any problems with GPO's mail order subscription service, write to: Service Section, Customer Information Branch, U.S. Government Printing Office, Washington, D.C. 20402.

• Low Cost Insurance

I would like to say to the "league of impoverished pilots" (July 1974 edition) that whether a person rents or owns an aircraft, the cost per hour is probably twenty dollars or more, leaving the price of a years subscription to FAA News equal to about fifteen minutes of flying time. I'd prefer to give up fifteen minutes *per year* rather than give up FAA News.

I feel the editors and staff of FAA News are doing a fabulous job and service to the aviation community and I, for one, would gladly pay more than twice the price for this "low cost insurance." I have learned a great deal from this publication—maybe even something that has or will save my life. I have been reading FAA News for several years and have found it to be extremely interesting and informative.

William J. Mueller
New York City

• Quincy's Baldwin

Your article on "Airship Pilot No. 1," Tom Baldwin of Quincy, Illinois, was very interesting and illuminating. While we agree that the spotlight of history has moved away from him, his name does not entirely remain in the shadows. Quincy, his home town for many years, where he owned and operated a large amusement park and fair ground, has honored him by naming its excellent airport "Baldwin Field," probably better know as UIN to the thousands of pilots who land here or fly over our VOR.

Robert S. Hunter
Quincy, Illinois

• Canada's Baldwin

The author of your article "Airship Pilot No. 1" in the Famous Flight series of FAA AVIATION NEWS (January 1975) has confused the exploits of Thomas Scott Baldwin with those of Fredrick W. (Casey) Baldwin, a Canadian.

It was Casey, not Thomas Baldwin, who was a member of the Aerial Experimental Association in 1907 and who designed the pioneering aircraft, *White Wing*. See *Canada's Flying Heritage*, by F. H. Ellis, and *Bell and Baldwin*, by J. H. Parkin.

D. M. Newman
De Havilland Aircraft
Ontario, Canada

• Happy Memories

Imagine my surprise upon receiving the December/January Aviation News to see my husband and myself on your cover! The photo was taken in December of 1966 on the Thomas Creek air strip in the Primitive Area of Idaho. My husband Bob and I were working for Beech at the time, flying a pair of new model airplanes for advertising photos. We had honeymooned at Thomas Creek and suggested using the strip for interesting shots. The pictures were taken by Jim Yarnell.

Thanks for conjuring up happy flying memories!

Gene Nora Jessen
Boise, Idaho

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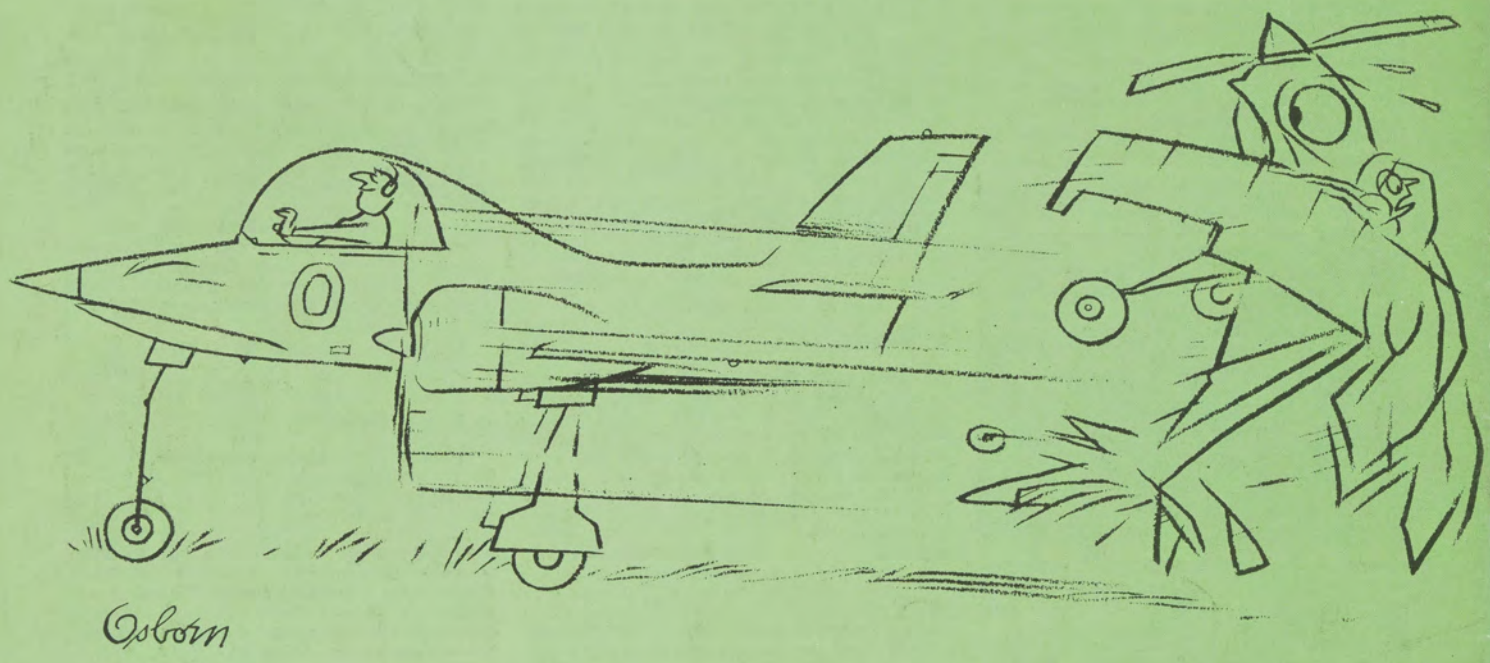

To the guy behind.

Suggested by C. E. Melton,
Aeronautical Center, Oklahoma City, Ok.